

Installation Instructions for Rhino Rail Model 1020 Hydraulic Tailgate

Notice: Read before attempting installation. Improper installation will **void** warranty.

Tools Required:

- Chain hoist or other heavy duty lifting apparatus
- Welder
- Miscellaneous - Approximately 48" 1"x1-1/8" Angle Iron & 48" 1/4"x3" Flat Bar
- Cutting torch
- Tape measure
- General purpose level
- Framing square
- 10' lifting chain with hooks
- Grease, chain lubricant, STP
- Assorted hand tools: hammers, pliers, pipe wrench & other wrenches

Trailer or Truck Body Preparation

Remove bumper, step, or any protrusion that would prevent the cylinder housing from being mounted flush against the trailer frame or truck body door frame.

Note: Welding may require that the alternator being disconnected from the vehicles electrical system. Check the vehicles owners manual.

Installation Instructions

Note: In these instructions forward shall mean the front of the vehicle. Rear shall mean the rear of the vehicle. Right and left shall be considered as viewed from the rear of the vehicle facing forward.

Note: The major factor in a properly installed lift is getting the tailgate level and square with the vehicle cargo bed. Failure to do so will result in binding and excessive wear to the lift components.

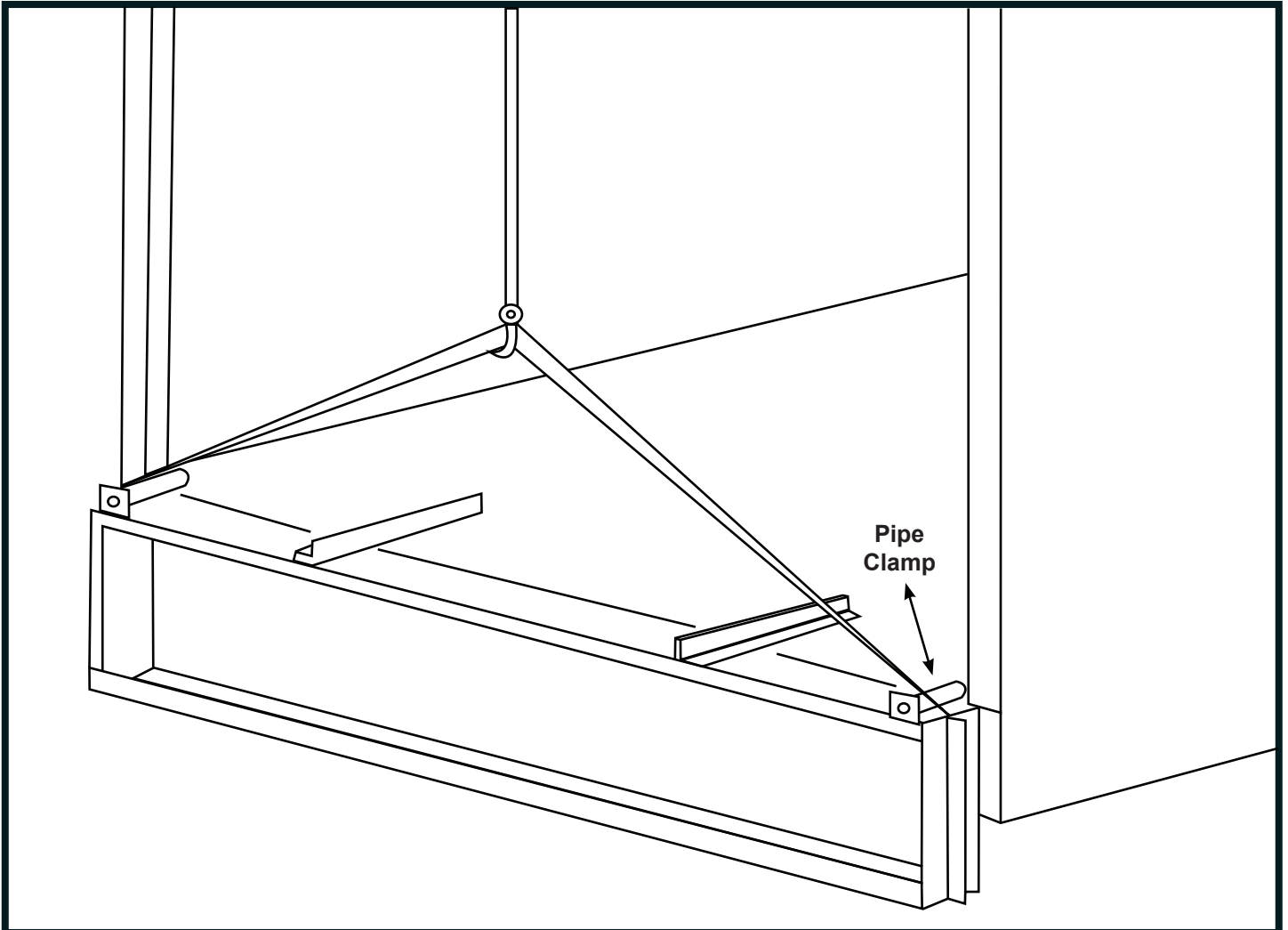
Follow the steps outlined in the following pages to ensure smooth operation.

Step 1: It is essential that the vehicle is parked on a level surface to ensure that the cargo bed is parallel to the ground.

Step 2: Remove all packaging and branding from the cylinder housing. Remove cylinder housing cover. Inside will be two packages of roller chain for you to remove. Check for shipping loss or damage.

Step 3: Cut 1"x1" angle iron approximately 24" long and bolt or tack weld to the floor of the trailer. Approximately 30" left or right of center and allow 12" to protrude beyond the back of the trailer.

Step 4: Hook chain at either end of cylinder box.



Step 5: Lift cylinder housing up to rear of the trailer, so that the top of cylinder box is level with cargo floor. Push housing so that it is flush and centered on the rear of the trailer. You should now be able to clamp or vice grip the cylinder box to the 1"x1" angle iron protruding from the back of the trailer.

Step 6: Tac weld cylinder housing to vehicle along top edge. Make sure cylinder box is parallel to the back of the trailer.

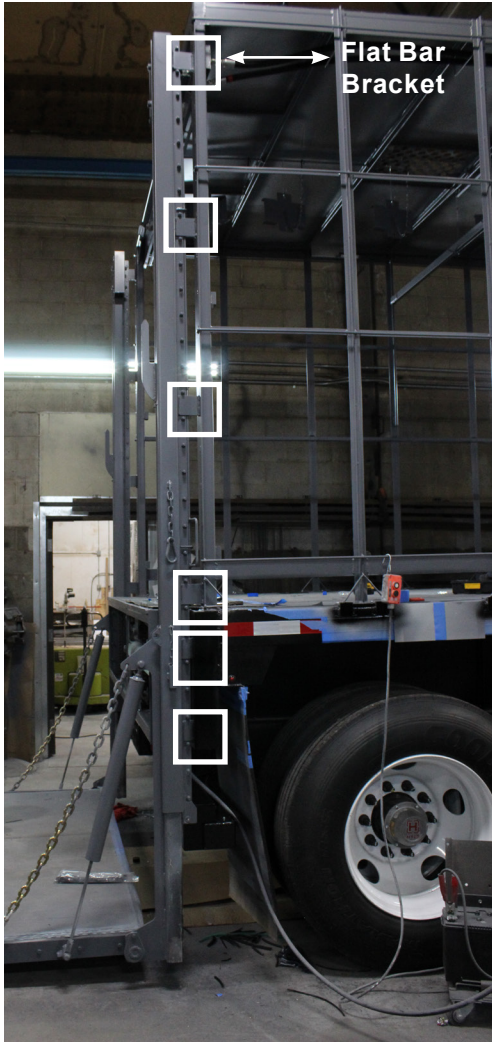
Step 7: Locate 10' rails. Center and weld bolting plate onto rails 90"-94", depending on overall height of trailer, from the top of the sprocket housing.



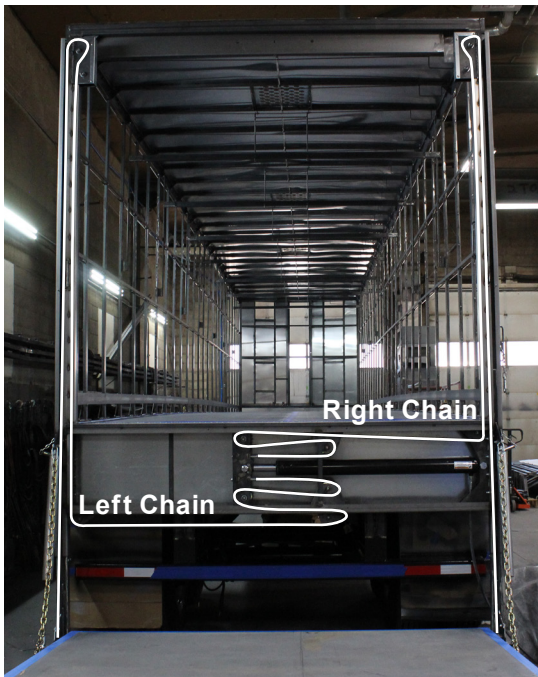
Step 8: Attach left and right chain to 5' sliders. Grease sliders and insert into left and right 10' rails, pulling the chain up as you go. Thread chain around top sprockets and clamp roller chain to 10' tubes. To ensure that they are in the correct tube, the cutout in the slider will be on the same side as the two roller sprockets in the top of the 10' rails. Install bottom sprockets in the 10' rails and thread chain as shown.

Step 9: Bolt left and right 10' rails to the cylinder box using $\frac{3}{8}$ " bolts and lock nuts. Check to make sure rails are square, parallel with each other and run straight up the back of the trailer box. Install bottom rollers onto 10' rails.

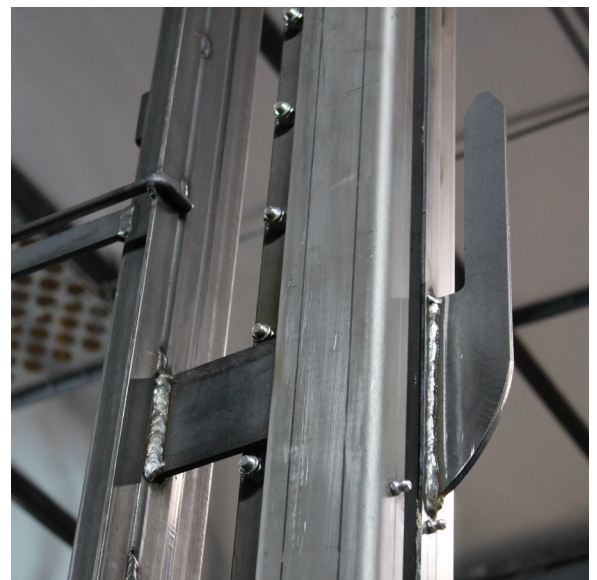
Step 10: Using $\frac{1}{4}$ "x 3" flat bar; cut short pieces to weld between 10' rails and trailer box. These need to be spaced approximately 28" apart. See picture. You now should be able to weld the top of cylinder box to the back of the trailer. Make a 3" weld every 10"-15".



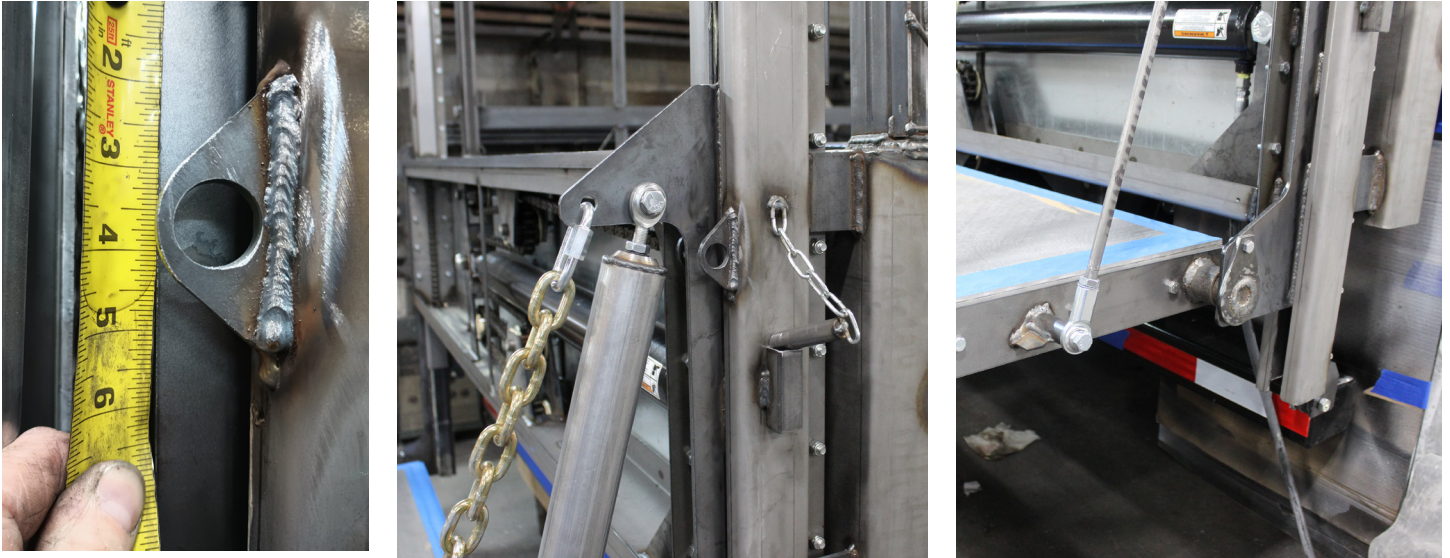
Step 11: Install $\frac{3}{8}$ " hydraulic hose(s) to cylinder. You should now be able to activate cylinder and raise the 5' slider tubes 18" off the ground. You are now ready to install the platform to the slider tubes using the $1\frac{1}{2}$ " steel platform pins and lock collars. Fold platform into an upwards position and install $\frac{3}{8}$ " chain with quick link to 5' slider. Also, spring balance assembly to slider and platform.



Step 12: Raise platform to floor height of trailer. Use chain adjusting bolts to level platform with floor. Begin greasing 10' rails with lithium grease. Now, you want to weld the platform latch. Position the bottom of platform latch approximately 31" up front floor and weld into place. See picture.



Step 13: Platform stop pins can also be welded to 10' rails if so desired. Center of hole should be approximately 3 5/8" from the floor of the trailer.



Step 14: Weld bottom cylinder box supports in place. See picture. Weld cylinder box and 10' rails securely to the back of the trailer. Install safety chain to secure platform in traveling position. This will be approximately 16" up from trailer floor and hook into the 3/8" platform chain.

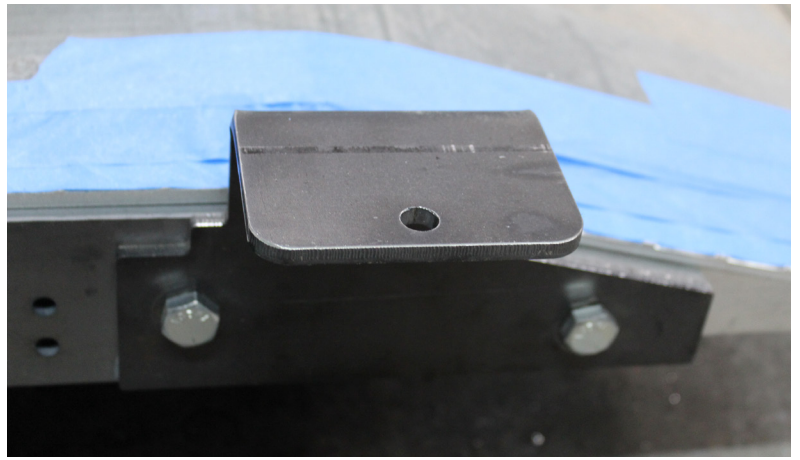


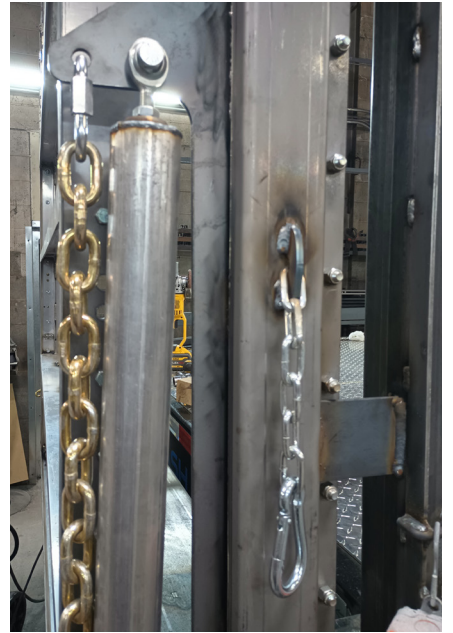
Step 15: Install chain guards onto right and left 10' rails. Grease all sprockets; 11 total.

Step 16: Install aluminum cylinder box cover plate and attach all safety decals. See picture and decal instruction sheet.

Additional pictures included on page 7 and 8.

All operators need to be instructed on proper use and safety requirements of lift.





Decal Placement Rhino Rail Lift Gates

Two of the following decals are supplied with each Rhino Rail Lift Gate. Surface must be clean and dry before applying.

1. "Urgent Warning Platform Lift Instruction" - Place one on inside door of pump. The other is to be placed on the right hand side rail of trailer as near to lift as possible.
2. "Capacity 2000lb. or Two Loaded poultry Carts" - Place one on top left side of hydraulic cylinder box cover. The other is to be placed on right hand side rail of trailer lift.
3. "Keep Clear of lift in Motion: - Place one on top right side of hydraulic cylinder box cover. The other is to be placed on the right hand side of rail of trailer near lift.
4. "Pinch Point Keep Clear" - Place at bottom right and bottom left of hydraulic cylinder box cover at bend, approximately 20" down from bottom of cover.
5. "Do Not Ride" - Place one on top center hydraulic cylinder box cover. The other on the back left hand side tail of trailer as near to life as possible.

Decals should be kept clean and visible at all times. Replacement decals are available at no charge to purchaser. Contact FPM Inc. at 402-729-2264 or sales@fpmne.com.



FPM Rhino Rail Lift Platform Stops

Lift is also equipped with two platform stop pins, which limits descent of platform to deck height of trailer. Use only when above deck loading or unloading. Lower platform to deck and mark location on 10' rails. Tack weld pin holders similar to picture. Approximately $\frac{1}{4}$ " to $\frac{3}{8}$ " from slot on each rail. Raise platform above deck and insert pins into each side and lower again to make sure you are at deck height before welding solid. There is also pin holder, which is welded to side of rail for transporting.

